

reverie reflect unfavorably, not only on other parts of the book, but upon the general trustworthiness of the author's scientific writings. Even in natural history romance, probabilities should at least be kept in view. In other parts of the book there are passages which evince a surprising degree of ignorance on points well-known to many much less pretentious observers.

Throughout the work the author betrays a penchant for gratuitous and not particularly sagacious speculation, as witness repeated attempts to account for changes in habits when the author himself admits that he is not sure that the changes have in reality occurred. There is also a looseness of expression at times that ill-becomes a writer whose rambles are made habitually with note-book in hand, recording on the spot whatever seems worthy of note. The List, in the Appendix, of 219 species of birds is practically, the author tells us, a reproduction of Turnbull's list, "with annotations based upon the observations of the sixteen years which have elapsed since Dr. Turnbull wrote his work." He says his list "may be said to constitute the ornithic fauna of Mercer County." It is, however, disappointing as a faunal list; the annotations are unsatisfactorily meagre, in many cases merely quotations from Turnbull, and in many others are marred by more or less obvious misstatements.—J. A. A.

Seebohm's History of British Birds.*—This work, the prospectus states, is intended to form three royal octavo volumes, of about 600 pages each, and will be published in six parts, illustrated with between 60 and 70 colored plates. It is the author's intention to issue a part every six months. The illustrations, executed in chromo-lithography, are to include all the known eggs of British birds, and those of several species will now be figured for the first time. Four parts have already reached this country, the first three being dated 1883 and the fourth 1884. The typographical execution of the work is excellent, and the plates are entitled to high praise. The author's style is attractive, and his fitness for the undertaking being well-known, the work cannot prove otherwise than a most important addition to the literature of British ornithology. In respect to nomenclature and classification Mr. Seebohm is conservative to a degree approaching eccentricity, but in respect to the general subject his views are liberal, philosophic, and progressive. As regards details of distribution, habits, etc., of the species treated, we are not in position to judge critically, but the work seems to carry the stamp of care and thoroughness. The illustrations have certainly rarely been equalled.

In an 'Introduction' of some twenty or more pages the author unfolds his plan and principles of work. He considers, very properly, that "the question of the development of species by evolution is one which lies at

* A History of British Birds, with colored Illustrations of their Eggs. By Henry Seebohm. London: Published for the author by R. H. Porter, 6 Tenterden Street, W., and Dulau & Co., Soho Square, W. Roy. 8vo. Vol. I, 1883, pp. xxiv + 613, pl. 20; Vol. II (Part 1, 1883, Part 2, 1884), pp. xxxiv + 600, pl. 22.

the foundation of all inquiries into the history of individual species; and when it is answered in the affirmative, the study of ornithology is found to possess a new interest, many obscure points become comparatively clear, and the old treatment of the subject requires modifying in various ways." "The acceptance of the hypothesis of evolution," he says, "implies the recognition of species in the process of formation"; and adds: "It is easy to find examples of species in every stage of development, from mere local races to well-defined sub-species." He discusses in this relation the interbreeding of birds, upon which he lays great stress as affording an explanation of intermediate forms. The influence of environment upon the evolution of species is thus to a large degree strangely ignored. As we have elsewhere said,* we cannot agree that interbreeding has anything like the importance in this connection that Mr. Seebohm assigns to it, or that it is by any means adequate to account satisfactorily, except in a small number of cases, for intermediate forms, many of which are so obviously due to environment. Neither can we quite agree that "in the tropical regions birds vary much less than they do in the arctic regions," or "that tropical species are well-defined," in comparison with those of other regions, but rather that variation within one given area as compared with another is dependent upon the relative diversity of the conditions of life in the one area as compared with the other, and in part to the varying degree of plasticity in different groups of birds.

As regards classification, Mr. Seebohm seems inclined to ignore all recent progress, because systematists have not yet come to an agreement in regard to all points, or even all important points, and so goes back to the 'artificial sequence adopted by Cuvier, which has at least the practical value that it is well-known, and thus obviates to a large extent the trouble of reference to an index' (!). He accordingly begins with the Raptorial Birds, and on reaching the Singing Birds, places them all in a single 'family Passeridæ,' recognizing for British Birds eleven '*sub-families*,' which are the equivalents of the *families* usually recognized by modern writers.

In respect to the 'vexed question of nomenclature,' he has throughout his work "set the Rules of the British Association at defiance, being convinced that, so far as ornithology is concerned, they have done infinitely more harm than good." His panacea for the evil is the utter disregard of the law of priority, and the adoption of an '*auctorum plurimorum*' rule; that is, the selection of "the specific name which has been *most used* by previous writers." In respect to genera, he follows the Stricklandian Code with modifications, some of which are manifest improvements. For instance, it seems sound doctrine that "Whenever the name of a species has been selected for the name of a genus, the species whose name has been so adopted becomes of necessity the type of such genus."

For subspecies he adopts what may be termed a Seebohmian system of trinomials, first instituted by him in his British Museum Catalogue of the

* Ibis, 1883, pp. 226-228.

Turdidæ,* which, as developed in the above-named and in the present work, is open to the charge of being illogical and inconsistent with the author's platform of principles. In illustration we may cite his treatment of the Gyrfalcons. He says there are "*two species* of Jer-Falcons, very distinct from each other, and having well-defined geographical ranges, *but connected together by a series of intermediate forms in the intermediate localities.*" We are at a loss, however, to understand what is meant by *species*, in view of the two parts of the above quotation we have distinguished by italics. The heading here adopted is "*Falco gyrfalco* and *Falco candicans*. Brown Jer-Falcon and White Jer-Falcon." Under this the synonymy is grouped under four subheads, as follows: (1) *Falco gyrfalco*; Brown Jer-Falcon. (2) *Falco gyrfalco candicans*; Iceland Jer-Falcon. (3) *Falco candicans gyrfalco*; South Greenland Jer-Falcon. (4) *Falco candicans*; White Jer-Falcon. After detailing the various intermediate stages he says: "The selection of any one of these intermediate forms is purely arbitrary; and between the two extreme forms it is just as easy to make ten subspecies as two." His recognition of two *species* then (not *subspecies*) within this group must be purely arbitrary and without reason, as he appears to admit, species seeming to rest on no different basis from subspecies! We believe, however, that Mr. Seebohm, in theory at least, stands on firmer ground than this, and that his paper on the subject of trinomial nomenclature, read at the meeting of British naturalists convened last July to consider this subject,† indicates that he has now reached better footing.

Mr. Seebohm here and there finds occasion to criticise the work of some of his fellow ornithologists, and the unsparing hand with which he sometimes belabors his unfortunate victim indicates that he is by no means lacking in what has been termed the courage of conviction; but he very cordially invites like treatment of his own mistakes. In his accounts of the species treated, he gives special attention to their geographical distribution, their relations to allied forms, and very full details of their life-histories, often incorporating therewith much wholly fresh material. Doubtless in some instances he takes a more comprehensive view of species than some would be inclined to allow, but doubtless not wider, in most cases, than his extended experience with the forms in question would seem to warrant.

As Mr. Seebohm says: "The real history of a bird is its *Life*-history. The deepest interest attaches to every thing that reveals the little *mind*, however feebly it may be developed, which lies behind the feathers. The habits of the bird during the breeding season, at the two periods of migration, and in winter: its mode of flight and of progression on the ground, in the trees, or on the water: its song and its various call- and alarm-notes; its food and its means of procuring it at different seasons of the year; its migrations, the dates of arrival and departure, routes it chooses, and the winter quarters it selects; and, above all, every

* Cf. Bull. N. O. C., VIII, pp. 100-104.

† See Auk, I, pp. 342-346.

particular respecting its breeding, when it begins to build its nest, the materials it uses for the purpose, the number of eggs it lays, the variation in their color, size and shape,—all these particulars are the real history of a bird; and in the account of each species of British birds I endeavour to give as many of them as possible." The Introduction to Volume II contains a paper of 24 pages 'On the Protective Colour of Eggs,' by Mr. Henry Dixon, which will be noticed at length in some future number of 'The Auk.'

Mr. Seebohm's work abounds in passages which invite comment, but lack of space forbids a more extended notice.—J. A. A.

Ingersoll's 'Country Cousins.*'—This well-written work, intended to entertain and assist 'those who take delight in out-door studies,' consists of twenty-one articles, devoted to a variety of subjects, reprinted from the various periodicals in which they originally appeared. Birds come in for a fair share of notice, mainly in the chapters entitled 'A Wet Day with the Birds' (pp. 21-30), 'Birds of the Brookside' (pp. 39-48), and 'A Chat about Bob White' (pp. 175-181). The book as a whole is much better written, both as regards truthfulness and style, than popular works on natural history often are, the writer for the most part contenting himself with subjects with which he is personally familiar, and in which he is especially interested. He therefore writes intelligently, largely from original observation, and in the main correctly, but there are here and there lapses which a little more care would have saved. This is not often the case in the ornithological portions of the work, but a pleasantly written account, several pages in length, of the Long-billed Water Thrush (*Siurus motacilla*) is marred at its close by the statement, "This is a northern bird." The Spotted Sandpiper, the three species of *Siuri*, and the Quail (*Ortyx virginianus*) are the species accorded most attention.—J. A. A.

Langille's 'Our Birds in their Haunts: A Popular Treatise on the Birds of Eastern North America.'†—Several months have now elapsed since the appearance of this long-promised book, on which the author has been at work, he tells us, for the past twelve years. It is a compact volume of 624 pages, sparsely illustrated by woodcuts, most of which are borrowed from the second edition of Coues's 'Key.' Its scope will appear from the opening sentence of the preface: "The first aim of this work is to render as popular and attractive as possible, as well as to bring within a small compass, the sum total of the bird-life of Eastern North America." Had

* Country Cousins: Short Studies in the Natural History of the United States. By Ernest Ingersoll, Author of 'Friends Worth Knowing,' 'Knocking Round the Rockies,' 'The Ice Queen,' etc. Illustrated. New York: Harper & Brothers, Franklin Square, 1884. 8vo. pp. 252. Plates, and woodcuts in the text.

† Our Birds in their Haunts: a Popular Treatise on the Birds of Eastern North America. By Rev. J. Hibbert Langille, M. A. Boston: S. E. Cassino & Company 1884. 8vo. pp. 624, woodcuts in the text.